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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/686,654	10/17/2003	Kyoung-Ju Shin	P3053/VSN	9816
41943	7590	07/17/2006	EXAMINER	
GWIPS PETER T. KWON P.O. BOX 231630 CENTERVILLE, VA 20120			PATEL, RITA RAMESH	
			ART UNIT	PAPER NUMBER
			1746	

DATE MAILED: 07/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/686,654	SHIN, KYOUNG-JU	
	Examiner	Art Unit	
	Rita R. Patel	1746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

The drawings received 10/17/03 are acceptable for examination purposes.

Specification

The disclosure is objected to because of the following informalities: on page 2 of the Specification, under the section titled *Summary of the Invention*, the term "optionallyattached" is used, it appears to be a misspelling of the terms "optionally attached". Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-3 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: positioning of the steam generation device in relation to the engine and compressor of the car.

Claim Rejections - 35 USC § 102 / 35 USC § 103

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 3 are rejected under 35 U.S.C. 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Palmer (US Patent No. 4,158,248).

Palmer teaches a mobile cleaning unit mounted within a vehicle which includes an engine 8, pump 22, water pump 30, belts 22, 26, conduits 52, 64, 66, heater 46, spray nozzle 48 and vacuum head 50 for emitting steamed cleaning solution therefrom and collecting means by way of the vacuum head. The belts 22, 26 are used to connectively run between the engine and pump assemblies. Pumps 22, 30, inlet conduit 52, and outlet conduit 66 of Palmer read on applicant's claim for a compressor with an inhalation hole and a discharge hole. Heater 46 receives cleaning solution via conduit 66, as seen in Figure 1, and creates steam from this solution; this reads on applicant's claim for a steam generation device. Also, switches 93, 94, 96 are mounted,

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as seen in Figure 2, for operating said cleaning apparatus. The pumps of Palmer reads on applicant's claims for a compressor because the pumps of Palmer teach manipulation of the cleaning solution therein by means of compression; these pump means create a negative pressure and thus deliver pressurized cleaning solution therefrom (col. 3, lines 39-40; col. 4, lines 10-13, 24-27). However, in the alternative, it would also have been obvious to one of ordinary skill in the art at the time of the invention to use a compressor in Palmer for compressing the liquid and for application at an increased pressure. A cleaning solution that is compressed prior to being sprayed onto the surface to be cleaned will provide increasingly more effective cleaning by heating up into a steamed solution quicker and once sprayed, dislodge particles more forcefully.

Re applicant's claim for an injector having a connection hose which can be attached to the discharge hole, the Office provides the following definition for the injector apparatus to establish a common definition of the term injector: a device for forcing water into a steam boiler ("injector". Collins English Dictionary (2000). Retrieved 06 July 2006, from xreferplus. <http://www.xreferplus.com/entry/2658053>). Thus, in accordance to said definition and applicant's disclosure, Palmer's teaching of the conduit 66, attached to heater 46 reads on applicant's claim for an injector. Palmer's conduit 66 transports a pressurized cleaning solution from the pumps 22, 30 to the heater 46 to be heated into steam.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Palmer as applied to claim 1 above, and further in view of Sousa et al. herein referred to as "Sousa" (US Patent No. 5,189,753).

Palmer teaches the claimed invention except fails to explicitly teach a filter within said vacuum accessory attached thereunto the car washing apparatus. Sousa, however, teaches a central vacuum cleaning assembly adapted for use in a vehicle such as an automobile, including a waste collection chamber 10, an air withdrawal chamber 11. It includes an air inlet port 12 and an outlet for filtered air to the atmosphere 13. A conventional latch means 14 is used for convenient joining or detaching of the two main portions to form the assembly. This assembly is then easily adapted, by conventional easily detachable retaining means, such as clip or snap means, for installation in a vehicle, quick detachment after removal from a vehicle, and for cleaning of the air filter means 15 (shown in Fig 4; Abstract). It would have been obvious to one of ordinary skill in the art at the time of the invention to use a filtered vacuum accessory in Palmer, as taught by Sousa, with expectation of providing a complete cleansing sequence for an automobile; filtered vacuuming accessories are

commonly used in the art for separating wastes from the cleaning solution which may have been picked up from the car after washing.

Conclusion

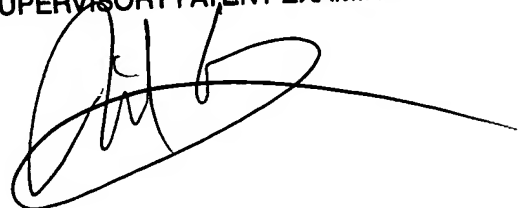
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rita R. Patel whose telephone number is (571) 272-8701. The examiner can normally be reached on M-F: 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on (571) 272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

RRP

MICHAEL BARR
SUPERVISORY PATENT EXAMINER

A handwritten signature in black ink, appearing to be 'Michael Barr', written over the printed name and title.